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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/800,134
				Filing Date	2004-03-11
				First Named Inventor	Gregory H. Altman
				Art Unit	1657
				Examiner Name	David M. Naff
Sheet	1	of	6	Attorney Docket Number	18668CIP1(SER)

U.S. PATENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (If known)			
		US-1,709,662	04/16/1929	GEORGE HOLLAND ELLIS	
		US-1,815,279	07/21/1931	J. TAKAMINE, JR.	
		US-1,828,736	10/27/1931	NORMAN D. HARVEY, JR.	
		US-1,896,494	02/07/1933	LATIMER D. MYERS AND LOU A. STEGEMEYER	
		US-1,921,022	09/19/1933	FINK ET AL.	
		US-1,990,588	02/12/1935	HUMBERTO L. BUENO	
		US-2,040,949	05/19/1936	HENRY CHARLES OLPIN AND GEORGE HOLLAND ELLIS	
		US-3,595,276	07/27/1971	ANDRUJ WRZESIEO	
		US-4,118,842	10/10/1978	NORRIS ET AL.	
		US-4,141,207	02/27/1979	MIZUSHIMA ET AL.	
		US-4,792,336	12/20/1988	HLAVACEK ET AL.	
		US-4,942,875	07/24/1990	HLAVACEK ET AL.	
		US-5,120,829	06/09/1992	PIERSCHBACHER ET AL.	
		US-5,171,505	12/15/1992	ROBERT L. LOCK	
		US-5,250,077	10/05/1993	FUSE ET AL.	
		US-5,252,285	10/12/1993	ROBERT L. LOCK	
		US-5,385,836	01/31/1995	KIMURA ET AL.	
		US-5,456,697	10/10/1995	CHESTERFIELD ET AL.	
		US-5,587,456	12/24/1996	PIERSCHBACHER ET AL.	
		US-5,591,822	01/07/1997	PIERSCHBACHER ET AL.	
		US-5,598,615	02/04/1997	TOORU TAKADA	
		US-5,606,019	02/25/1997	JOSEPH CAPPELLO	
		US-5,760,176	06/02/1998	PIERSCHBACHER ET AL.	
		US-5,849,040	12/15/1998	KEIICHIRO KANEHISA	
		US-5,919,232	07/06/1999	CHAFFRINGEON ET AL.	
		US-5,951,506	07/14/1999	KOZO TSUBOUCHI	
		US-5,990,378	11/23/1999	JULIAN GARTH ELLIS	
		US-6,110,590	08/29/2000	ZARKOOB ET AL.	
		US-6,136,022	10/24/2000	NUNEZ ET AL.	
		US-6,175,053	01/16/2001	KOZO TSUBOUCHI	
		US-6,228,132	05/08/2001	PRINCE ET AL.	
		US-6,287,340	09/11/2001	ALTMAN ET AL.	
		US-6,302,922	10/16/2001	KEIICHIRO KANEHISA	
		US-6,303,136	10/16/2001	LI ET AL.	
		US-6,440,740	08/27/2002	TSUBOUCHI ET AL.	
		US-6,638,284	10/28/2003	ROUSSEAU ET AL.	
		US-6,729,356	05/04/2004	BAKER ET AL.	
		US-6,773,459	08/10/2004	DAUNER ET AL.	
		US-6,827,743	12/07/2004	EISERMANN ET AL.	
		US-6,866,681	03/15/2005	LABOUREAU ET AL.	
		US-6,902,932	06/07/2005	ALTMAN ET AL.	
		US-6,946,003	09/20/2005	WOLOWACZ ET AL.	
		US-6,966,918	11/22/2005	SCHULDH-HEMPE ET AL.	
		US-6,971,252	12/06/2005	THERIN ET AL.	
		US-6,042,592	03/28/2000	PETER J. SCHMITT	See Claims 1-29,

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					Figures 1-9
		US-7,115,388	10/03/2006	KOZO TSUBOUCHI	
		US-7,156,858	01/02/2007	SCHULDT-HEMPE ET AL.	
		US-7,166,570	01/23/2007	HUNTER ET AL.	
		US-7,285,637	10/23/2007	ARMATO ET AL.	
		US-7,338,531	03/04/2008	ELLIS ET AL.	
		US-7,341,601	03/11/2008	EISERMANN ET AL.	
		US-7,824,701	11/02/2010	BINETTE ET AL.	
		US-7,828,855	11/09/2010	ELLIS ET AL.	
		US-7,842,780	11/30/2010	KAPLAN ET AL.	
		US-848,605	03/26/1907	PETER SCHMIC	
		US-6,146,418	11/14/2000	Berman et al	
		US-7,476,249	01/13/2009	Frank et al	
		US-7,8757074	01/25/2011	Chen et al	

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				Attorney Docket Number	18668CIP1(SER)

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		Number-Kind Code ² (if known)			
		US-2002/0156437	10/24/2002	MCDEVITT ET AL.	
		US-2003/0087433	05/08/2003	TSUBOUCHI ET AL.	
		US-2003/0165548	09/04/2003	TSUBOUCHI ET AL.	
		US-2003/0183978	10/02/2003	TETSUO ASAKURA	
		US-2004/0005363	01/08/2004	TSUKADA ET AL.	
		US-2004/0170827	09/02/2004	JOHN STEPHEN CRIGHTON	
		US-2004/0219630	11/04/2004	KOZO TSUBOUCHI	
		US-2004/0224406	11/11/2004	ALTMAN ET AL.	
		US-2005/0089552	04/28/2005	ALTMAN ET AL.	
		US-2005/0260706	11/24/2005	KAPLAN ET AL.	
		US-2008/0038236	02/14/2008	GIMBLE ET AL.	
		US-2008/0131509	06/05/2008	HOSSAINY ET AL.	
		US-2008/0176960	07/24/2008	TSUKADA ET AL.	
		US-2008/0300683	12/04/2008	ALTMAN ET AL.	
		US-2009/0024162	01/22/2009	SHALABY ET AL.	
		US-2009/0030454	01/29/2009	KNIGHT ET AL.	
		US-2009/0214649	08/27/2009	GAZIT ET AL.	
		US-2010/0209405	08/19/ 2010	ALTMAN ET AL.	
		US-2010/0249924	09/30/2010	POWELL ET AL.	
		US-2010/0256756	10/07/2010	ALTMAN ET AL.	
		US-2011/0009960	01/13/2011	ALTMAN ET AL.	
		US-2011/0171453	07/14/2011	ALTMAN ET AL.	
		US-2011/0167602	07/14/2011	ALTMAN ET AL.	
		US-2011/0184227	07/28/2011	ALTMAN ET AL.	
		US-2011/0189773	08/04/2011	ALTMAN ET AL.	
		US-2011/0224703	09/15/2011	MORTARINO ET AL.	
		US-2011/0257665	10/20/2011	MORTARINO ET AL.	
		US-2011/0257761	10/20/2011	MORTARINO ET AL.	
		US-2007/0088434	04/19/2007	Frank et al.	
		US-2010/0023029	01/28/2010	Young et al.	
		US-2011/0022171	01/27/2011	Richter et al.	
		US-2011/0054604	03/03/2011	Becker et al.	
		US-2011/0054605	03/03/2011	Becker et al.	
		US-2011/0106249	05/05/2011	Becker et al.	

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		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
		WO 2002/29141	04/11/2002	CON-SORZIO PER GLI STUDI UNIVERSITARI		
		EP 1241178	09/18/2002	NAT INST OF AGROBIO SCIENCES KOWA CO		
		JP H06-245989	09/06/1994	NIPPON SHOJI, LTD.		X
		WO 2009/023615	02/19/2009	TRUSTEES OF TUFTS COLLEGE		
		WO 2010/141133	12/09/2010	TRUSTEES OF TUFTS COLLEGE		
		WO 2010/074827	07/01/2010	SERICA TECHNOLOGIES, INC.		
		WO 2005/123114	12/29/2005	TRUSTEES OF TUFTS COLLEGE		
		WO 2004/062697	07/29/2004	TUFTS UNIVERSITY; MASSACHUSETTS INSTITUTE OF TECHNOLOGY		
		EP 0889156 A1	12/12/1996	KEIICHIRO KANEHISA		
		WO 2000/72782	12/07/2000	SMITH & NEPHEW PLC		

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		ALTMAN ET AL., Silk based biomaterials, <i>Biomaterials</i> (2003) 24:401-416	
		CAPPELLO ET AL., In-situ self-assembling protein polymer gel systems for administration, delivery, and release of drugs, <i>USA Journal of controlled release: official journal of the Controlled Release Society</i> (1998 Apr 30), 53(1-3):105-17, San Diego, CA 92121	
		HORAN ET AL., In vitro degradation of silk fibroin, <i>USA Biomaterials</i> (2005 Jun), 26(17):3385-93	
		HORAN, ET AL., Biological and biomechanical assessment of a long-term bioresorbable silk-derived surgical mesh in an abdominal body wall defect model, <i>Hernia</i> (2009) 13(2):189-99	
		KARDESTUNCER ET AL., RGD-tethered silk substrate stimulates the differentiation of human tendon cells, <i>Clinical Orthopaedics And Related Research</i> (2006), Number 448:pp. 234-239	
		KUNDU ET AL., Natural protective glue protein, sericin bioengineered by silkworms: Potential for biomedical and biotechnological applications, <i>Progress in Polymer Science</i> (2008) 33:998-1012	X
		PANILAITIS ET AL., Macrophage responses to silk, <i>Biomaterials</i> (2003) 24(18):3079-3085	
		TAMADA, Y., Symposium Preprints, <i>The Society of Fiber Science and Technology</i> (1998) p S-51	X
		TSUKADA, Preparation and application of porous silk fibroin materials, <i>Journal of Applied Polymer Science</i> (1994)	
		YANAGISAWA ET AL., Improving cell-adhesive properties of recombinant bombyx mori silk by incorporation of collagen or fibronectin derived peptides produced by transgenic silkworms, <i>Biomacromolecules</i> (2007), 8 (11):3487-3492	

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		ZHU ET AL., Preparation and Characterization of Regenerated Bombyx mori silk fibroin fiber containing recombinant cell-adhesive proteins; nonwoven fiber and monofilament, <i>Journal of Applied Polymer Science</i> (2008), Vol. 109:2956–2963	

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